5.0 MITIGATION MONITORING PROGRAM

As the Lead Agency under the CEQA, the CSLC is required to adopt a program for reporting or monitoring regarding the implementation of mitigation measures for this project, if it is approved, to ensure that the adopted mitigation measures are implemented as defined in this MND. This Lead Agency responsibility originates in Public Resources Code section 21081.6(a) (Findings), and the CEQA Guidelines sections 15091(d) (Findings) and 15097 (Mitigation Monitoring or Reporting).

5.1 MONITORING AUTHORITY

The purpose of a Mitigation Monitoring Program (MMP) is to ensure that measures adopted to mitigate or avoid significant impacts are implemented. An MMP can be a working guide to facilitate not only the implementation of mitigation measures by the Project proponent, but also the monitoring, compliance and reporting activities of the CSLC and any monitors it may designate.

The CSLC may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as deemed necessary, and some monitoring responsibilities may be assumed by responsible agencies, such as affected jurisdictions and cities, and the California Department of Fish and Game (CDFG). The number of construction monitors assigned to the project will depend on the number of concurrent construction activities and their locations. The CSLC or its designee(s), however, will ensure that each person delegated any duties or responsibilities is qualified to monitor compliance.

Any mitigation measure study or plan that requires the approval of the CSLC must allow at least 60 days for adequate review time. When a mitigation measure requires that a mitigation program be developed during the design phase of the project, the Applicant must submit the final program to CSLC for review and approval for at least 60 days before construction begins. Other agencies and jurisdictions may require additional review time. It is the responsibility of the environmental monitor assigned to each spread[1] to ensure that appropriate agency reviews and approvals are obtained.

[1] Often, construction (or in this case, deconstruction) activities for a project may occur concurrently at multiple separate locations called “spreads.” Depending on the distance between these spreads and the nature of the construction or deconstruction activities, one or more environmental monitors may be required to monitor compliance at each spread.

The CSLC or its designee will also ensure that any deviation from the procedures identified under the monitoring program is approved by the CSLC. Any deviation and its correction shall be reported immediately to the CSLC or its designee by the environmental monitor assigned to the construction spread.

5.2 ENFORCEMENT RESPONSIBILITY

The CSLC is responsible for enforcing the procedures adopted for monitoring through the environmental monitor assigned to each construction spread. Any assigned environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CSLC or its designee.

5.3 MITIGATION COMPLIANCE RESPONSIBILITY

The Applicant is responsible for successfully implementing all the mitigation measures in the MMP, and is responsible for assuring that these requirements are met by all of its construction contractors and field personnel. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Other mitigation measures include detailed success criteria. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

5.4 GENERAL MONITORING PROCEDURES

Environmental Monitors. Many of the monitoring procedures will be conducted during the construction phase of the project. The CSLC and the environmental monitor(s) are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with the Applicant. To oversee the monitoring procedures and to ensure success, the environmental monitor assigned to each construction spread must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The environmental monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

Construction Personnel. A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures require action on the part of the

construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures, will be taken:

- Procedures to be followed by construction companies hired to do the work will be written into contracts between the Applicant and any construction contractors. Procedures to be followed by construction crews will be written into a separate document that all construction personnel will be asked to sign, denoting agreement.
- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the monitoring program.
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all mitigation measures requiring their attention.

General Reporting Procedures. Site visits and specified monitoring procedures performed by other individuals will be reported to the environmental monitor assigned to the relevant construction spread. A monitoring record form will be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the environmental monitor. A checklist will be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitor will note any problems that may occur and take appropriate action to rectify the problems.

Public Access to Records. The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CSLC or its designee on request.

5.5 MITIGATION MONITORING TABLE

The following sections present the mitigation monitoring tables for each environmental discipline. Each table lists the following information, by column:

- Impact (impact number, title, and full text);
- Mitigation Measure (title and full text);
- Location (where the impact occurs and the mitigation measure should be applied);
- Monitoring/reporting action (the action to be taken by the monitor or Lead Agency);

- Effectiveness criteria (how the agency can know if the measure is effective);
- Responsible agency; and
- Timing (before, during, or after construction; during operation, etc.).

Table 5-1. Mitigation Monitoring Program – Applicant Proposed Measures (APM)

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Applicant Proposed Measures:	APM-1: Vessel fueling will be required at the staging area or at an approved docking facility. No cross vessel fueling will be allowed. Marine vessels generally will contain petroleum products within tankage that is internal to the hulls of the vessels.	MOT and contractor base	Observe activities for compliance	No fuel spills	CSLC	During deconstruction
	APM-2: All deck equipment will be equipped with drip pans to contain leaks and spills. All fuels and lubricants aboard the work vessels will have a double containment system. Chemicals used on the MOT and marine vessels will be stored using secondary containment.	MOT	Observe activities for compliance	No fuel spills reaching uncontained areas	CSLC	Before and during deconstruction
	APM-3: Vessels and equipment that rely on internal combustion engines for power and/or propulsion will be kept in good working condition, and compliant with California emission regulations.	MOT, onshore vault, and contractor base	Verification (maintenance logs) provided to CSLC	Exhaust emissions minimized	CSLC	Before deconstruction
	APM-4: Regular equipment maintenance and installation of mufflers, as appropriate on construction equipment, will be required of the contractors to minimize noise levels on shore.	MOT, onshore vault, and contractor base	Verification (maintenance logs) provided to CSLC	Noise minimized	CSLC	Before deconstruction
	APM-5: Pre-construction lead and ACM surveys will be conducted for MOT structures and equipment, and structures found to contain these hazards will be remediated prior to starting deconstruction activities.	MOT	Surveys and abatement reports submitted to CSLC, observe activities for compliance	Prevention of ACM and lead paint from being released to the environment	CSLC	Before and during deconstruction
	APM-6: BMPs will be employed to prevent soil, concrete or grout from entering the Bay as a result of activities associated with abandoning the onshore pipelines in place.	MOT and onshore vault	Submit BMPs to CSLC, observe activities for compliance	Prevention of soil, concrete, or grout from entering the Bay	CSLC	Before and during deconstruction

Table 5-1. Mitigation Monitoring Program – Applicant Proposed Measures (APM)

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	APM-7: Deconstruction activities will be performed between May 15 and October 31 during daylight hours only (8 am to 5 pm). Work on Saturdays would be subject to permission by the city of Hercules Public Works Director.	MOT and onshore vault	Observe activities for compliance	Reduces disturbances of local population and biota	CSLC	During deconstruction
	APM-8: Measures will be developed and implemented in coordination with wildlife agencies prior to the start of deconstruction activities to prevent birds from nesting on the MOT structures. If necessary, preconstruction nesting bird surveys will be conducted for birds and bats, as appropriate, prior to deconstruction activities to confirm effectiveness of the measures.	MOT	Measures and survey to be submitted to CSLC	Deterrence of nesting on MOT	CSLC	Before deconstruction
	APM-9: In coordination with the city of Hercules and town of Rodeo, residences in the vicinity of the proposed Project will be notified of the Project schedule and duration.	MOT and onshore vault	Verify coordination with local population	Provides advance notice of potential noise impacts	CSLC	Before deconstruction
	APM-10: Construction work at the onshore vault will be scheduled for summer months.	MOT and onshore vault	Observe activities for compliance	Reduce disturbances of local population and biota	CSLC	During deconstruction
	APM-11: To avoid impacts to marine mammals during deconstruction activities, a Marine Mammal Contingency Plan will be developed, reviewed and approved by NOAA NMFS and the CSLC prior to any deconstruction activities.	MOT	Submit plan to CSLC and NOAA NMFS for approval, observe activities for compliance	Reduce disturbances of local marine mammals	CSLC and NOAA NMFS	Before and during deconstruction
	APM-12: An exclusion zone around the construction area will be established in coordination with the USCG to restrict other vessel traffic around the Marine Terminal and the zone will be marked with buoys.	MOT	Verify that an exclusion zone has been established	Reduce chance for adverse interactions with other vessel traffic	USCG and CSLC	Before deconstruction

Table 5-1. Mitigation Monitoring Program – Applicant Proposed Measures (APM)

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	APM-13: Procedures will be implemented to inspect deck-mounted equipment and to flush or drain the equipment as appropriate, so that the equipment can be safely removed without risking petroleum or other hydrocarbon releases.	MOT and onshore vault	Submit procedures to CSLC, observe activities for compliance	No fuel spills reaching uncontained areas	CSLC	Before and during deconstruction
	APM-14: A Spill Prevention, Control and Countermeasure (SPCC) Plan will be prepared and implemented to minimize the potential for accidental releases of fluids such as hydraulic fluids, solvents, oils, and residual fluids present in MOT equipment.	MOT	Submit plan to CSLC for approval	No spills reaching uncontained areas	CSLC	Before deconstruction
	APM-15: As part of the Construction Work Plan, Coscol shall have no source of fuel or oil larger than 5 barrels (210 gallons) at the proposed Project site, including the MOT, the near shore work barge, and the shore base.	MOT, onshore vault, and contractor base	Submit plan to CSLC for approval	Reduce potential large sources of fuel or oil to minimize fuel spill risk	CSLC	Before and during deconstruction
	APM-16: The Construction Work Plan calls for preparation by Coscol (or its contractors) and approval by the CSLC prior to deconstruction activities, of the following plans: a Marine Safety Plan, an Extraction Trial Implementation Plan, Seafloor Debris Removal Plan, Rigging and Lifting Plan, Traffic Control Plan, Critical Operations and Curtailment Plan, Marine Communication Plan, Marine Transportation Plan, Navigation Marking and Lighting Plan, Anchoring Plan, and an Oil Spill Response Plan.	MOT, onshore vault, and contractor base	Submit plans to CSLC for approval	Reduce hazards risk and ensure proper planning for deconstruction in place	CSLC	Before deconstruction

Table 5-2. Mitigation Monitoring Program – Air Quality

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
AIR-1: Temporary Deconstruction Emissions of Criteria Pollutants. Project deconstruction activities could result in substantial short-term emissions of criteria pollutants.	AIR-1: Fugitive Dust Control Plan. Coscol shall require its construction contractor(s) to implement a dust control plan for the pipeline and vault abandonment activities, as well as for all on-road transport of soil and demolition debris at the contractor's onshore base, that shall include the following dust control procedures as recommended by the BAAQMD: • Water all active construction areas at least twice daily. • Cover all trucks hauling soil, sand, and other loose materials or require trucks to maintain at least 2 feet of freeboard. • Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on unpaved access roads, parking areas and staging areas at construction sites. • Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. • Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.	MOT, onshore vault, and contractor base	Coscol to submit dust control plan to CSLC for approval	Dust emissions are minimized	CSLC	Before and during deconstruction
AIR 2: Demolition of Asbestos-Containing Material. Project deconstruction activities could expose sensitive receptors to asbestos	AIR 2: Consult with BAAQMD Regarding Asbestos-Containing Materials. Coscol shall require its deconstruction contractor(s) to consult with the Bay Area Air Quality Management District (BAAQMD) to ensure that it properly complies with the requirements of the BAAQMD's Regulation 11, Rule 2, regarding testing and remediation of asbestos-containing materials. Prior to deconstruction activities, Coscol shall provide documentation to the CSLC that shows that the BAAQMD concurs with the contractor(s) sampling and remediation approach.	MOT, onshore vault, and contractor base	Submit plans to CSLC for approval	Reduce hazards risk and ensure proper planning for deconstruction in place	CSLC	Before and during deconstruction

Table 5-2. Mitigation Monitoring Program – Air Quality

AIR-3: Increase in Greenhouse Gas Emissions The proposed Project would produce short-term greenhouse gas emissions and contribute to climate change.	AIR-3: GHG Emission Offset Program. Prior to the start of construction, Coscol shall purchase carbon offset credits from the California Climate Action Registry (CCAR) or any source that is approved by the CSLC and that is consistent with the policies and guidelines of the California Global Warming Solution Act of 2006 (AB 32) to offset the 3,828 metric tons of greenhouse gas emissions generated during deconstruction activities. The amount of greenhouse gas emissions to be offset may vary depending on if any of the deconstruction plans are modified. Within 60 days of completion of the proposed Project, Coscol shall submit a report for the CSLC's review and approval, which shall identify all construction-related emissions and the offsets that were purchased from approved programs that resulted in a zero net increase in emissions from the Project construction.	MOT, onshore vault, and contractor base	Submit evidence that offset credits have been acquired.	Reduce impact of Project GHG emissions to a net zero increase in GHGs	CSLC	Within 60 days before completion of deconstruction project

Table 5-3. Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
BIO-1: Potential impacts to fish species due to deconstruction activities. Deconstruction activities, e.g., vessel movements and mooring, mooring anchor placement, barge grounding, piling removal, jetting/dredging to expose piles below the seafloor surface, and underwater noise generated by general deconstruction activities may result in physical displacement, habitat disturbance, and short-term loss of foraging area for special-status fish such as Delta smelt, longfin smelt, green sturgeon, Chinook salmon, steelhead trout, Pacific herring, and Fishery Management Plan managed groundfish.	BIO-1a: Avoidance Measure. Minimize vessel traffic and movements to reduce potential physical displacement of fish.	MOT	Observe activities for compliance	Reduce potential physical displacement of fish	CSLC	During deconstruction
	BIO-1b: Minimize Nearshore Habitat Disturbance. The shallow draft barge used to deconstruct the shore side pipeline vault shall be limited to one round-trip to conduct planned deconstruction activities at the pipeline vault. Personnel shall be transported daily to the barge by means of a shallow draft boat. Barge and support vessels shall transit through the shallows at a no-wake producing speed to minimize disturbance to bottom sediments. Anchoring shall be minimized.	Onshore vault	Observe activities for compliance	Reduce potential habitat disturbances	CSLC	During deconstruction

Table 5-3. Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	BIO-1c: Minimize Nearshore and Offshore Habitat Disturbance. The Anchoring Plan specified in APM-16 shall require that the use of mooring anchors by deconstruction vessels and barges shall be minimized. The Anchoring Plan (see APM-16) shall further specify that if mooring anchors must be used, then a secondary support workboat shall be used to deploy and retrieve mooring anchors and that mooring anchors shall not be dragged along the seafloor.	MOT and onshore vault	Submit plan to CSLC for approval, observe activities for compliance	Reduce seafloor disturbances	CSLC	Before and during deconstruction
	BIO-1d: Decommissioning Personnel Training. Personnel involved in deconstruction activities shall be trained in the importance of the marine environment to special-status fish, birds, and marine mammals and the environmental protection measures put in place to prevent impacts to these species and Essential Fish Habitat.	MOT and onshore vault	Submit attendance records of training to CSLC	Ensure that personnel are aware of special-status fish, birds, and marine mammals and protection measures	CSLC	Before and during deconstruction
BIO-2: Potential impacts of deconstruction to marine mammals. Deconstruction activities may result in direct impacts to marine mammals such as California sea lions and Pacific harbor seals.	BIO-2a: Implementation of Marine Mammal Contingency Plan. Coscol has prepared a Marine Mammal Contingency Plan, which shall be implemented in its entirety. This plan, as discussed in APM-11, is consistent with section 109 (h) of the Marine Mammal Protection Act for dealing with nuisance animals and animals that need to be relocated from a location for their own protection and welfare. This plan will be reviewed by NOAA NMFS and CSLC personnel prior to implementation.	MOT	Submit plan to CSLC for approval, observe activities for compliance	Reduce disturbances of local marine mammals	CSLC and NOAA NMFS	Before and during deconstruction
	BIO-2b: Prioritize Removal of Potential Haul Out Locations. Parts of the MOT that have the potential to be used by marine mammals as a resting haul out (pilings and structural support components, boat landing) are to be removed as early in the deconstruction schedule as possible. This will be done in order to prevent the continued use of these structures by marine mammals during deconstruction.	MOT	Observe activities for compliance	Reduce disturbances of local marine mammals	CSLC	During deconstruction

Table 5-3. Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
BIO-3: Potential impacts of lighting on fish species. Use of bright nighttime lighting may affect the normal movement and increase predation of special-status fish such as Delta smelt, longfin smelt, green sturgeon, Chinook salmon, steelhead trout, Pacific herring, and Fishery Management Plan managed groundfish.	APM-7	MOT and onshore vault	Observe activities for compliance	Reduces disturbances of local population and biota	CSLC	During deconstruction
BIO-4: Potential impacts of toxic materials to fish species. Release of toxic materials to the marine environment can result in deleterious physical impact to special-status fish such as Delta smelt, longfin smelt, green sturgeon, Chinook salmon, steelhead trout, Pacific herring, and Fishery Management Plan managed groundfish, marine birds, and mammals as well as the important habitat supporting them.	BIO-4a: Boom Deployment. A floating boom and skirt suitable for sea and weather conditions in San Pablo Bay shall be deployed around the MOT and deconstruction vessels. The boom shall be inspected at least daily and any retained floatable debris and sheen producing liquids shall be removed and properly disposed.	MOT	Observe activities for compliance	Reduce risk of accidental fluid spills impacting San Pablo Bay	CSLC	During deconstruction
	BIO-4b: On-site Absorbent Boom and Pads. A sufficient supply of sorbent booms and pads shall be available at the MOT and aboard all decommissioning work vessels and barges to recover any spilled hydrocarbon, hydrocarbon containing fluids, or other hazardous liquids. Used pads and booms shall be properly handled and disposed of.	MOT	Observe activities for compliance	Reduce risk of accidental fluid spills impacting San Pablo Bay	CSLC	During deconstruction
	BIO-4c: Sealing All Tank, Vessels, Hose, and Pipe Openings. Prior to removal of any equipment, hoses, or pipe from MOT to decommissioning barges or ships for transport to the shore base, they shall be visually inspected for the presence of hydrocarbons. If present, the openings or penetrations shall be sealed to prevent the accidental release of any hazardous materials still residing in the equipment, hoses, or pipe; or sorbent material shall be used to remove the hydrocarbon fluids/residue prior to transfer to deconstruction barges.	MOT	Observe activities for compliance	Reduce risk of accidental fluid spills impacting San Pablo Bay	CSLC	During deconstruction

Table 5-3. Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	BIO-4d: Use of Seep Tent. During cutting and capping activities of all pipelines below the seafloor at the marine terminal, a seep tent shall be deployed above the divers to contain any residual hydrocarbons that may be trapped in the excavated pipeline segment and which could be released to Bay waters.	MOT	Work plan verification, observe activities for compliance	Reduce risk of accidental fluid spills impacting San Pablo Bay	CSLC	During deconstruction
	BIO-4e: Removal of Hydrocarbons from Pipelines. Prior to removal of either the riser section or the shore-side landfall segment of each of the five pipelines transiting between the previous MOT, each pipeline shall be carefully inspected for the presence of any hydrocarbon material that may have risen to the two high-points of each pipeline. Any hydrocarbons that have pooled at the two ends of each pipeline shall be recovered and removed prior to the removal of that pipeline segment. Any recovered hydrocarbon material shall be properly stored and disposed of.	MOT and onshore vault	Work plan verification, observe activities for compliance	Reduce any residual impact from existing pipeline contamination and post in-place abandonment	CSLC	During deconstruction
	BIO-4f: Use of Biodegradable, Non-Toxic Hydraulic Fluid in Decommissioning Equipment. To avoid the most significant source of potential toxic hydrocarbon releases to Bay waters from deconstruction activities, non-toxic biodegradable hydraulic fluid shall be used in all decommissioning equipment.	MOT and onshore vault	Work plan verification, observe activities for compliance	Reduce impact of accidental fluid spills impacting San Pablo Bay	CSLC	During deconstruction
BIO-5: Potential impacts of debris on nearby habitat. Loss of marine oil terminal equipment and deconstruction debris into the Bay may negatively impact special-status species and their habitats.	BIO-5a: Deconstruction Debris Recovery. The onsite contractor's supervisor and mitigation monitor shall record any deconstruction equipment, tools, pipe, pilings, other materials, or MOT debris that are accidentally dropped into the Bay. Its description and location shall be included in the record. As proposed in APM-16, a Seafloor Debris Removal Plan will be prepared by the Applicant and approved by the CSLC. This plan will outline at a minimum: 1) debris field boundaries associated with deconstruction activities;	MOT	Observe activities for compliance	Reduce seafloor disturbances	CSLC	During deconstruction

Table 5-3. Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	2) items requiring immediate cessation of deconstruction activities and immediate initiation of search and recovery efforts and procedures for implementing those recovery efforts; 3) how lost debris that is to be removed post-deconstruction is to be identified, who will be conducting search and recovery operations, and the survey methods to be employed to locate lost equipment and materials; 4) criteria that will be used to: a) determine whether recovery efforts are appropriate for the object being recovered and do not result in potential environmental impairment greater than if the debris was allowed to remain in place; and b) when sufficient effort has been expended to recover a lost object(s) with no success and continued efforts to recover the seafloor debris have diminishing potential for success and/or result in environmental impairment greater than leaving the debris in place. 5) person(s) responsible for implementing the Plan and making the determination on the type of recovery required; 6) how debris is to be disposed of or recycled; and 7) metrics for determining when recovery efforts will be considered complete.					
	BIO-5b: Seafloor Debris Removal Plan Preparation. This Plan shall be prepared and approved by the CSLC prior to initiation of on-site deconstruction activities.	MOT	Submit plan to CSLC for approval	Reduce seafloor disturbances	CSLC	Before the end of deconstruction
	BIO-5c: Seafloor Debris Removal Plan Implementation: Implementation of the approved Seafloor Debris Removal Plan must commence within 30-days following completion of the on-site MOT deconstruction activities and be monitored by the environmental mitigation monitor.	MOT	Submit plan to CSLC for approval	Reduce seafloor disturbances	CSLC	Within 30-days after deconstruction

Table 5-3. Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	BIO-5d: Seafloor Debris Removal Plan Report: Following completion of all post deconstruction recovery efforts for seafloor debris, a report will be prepared and submitted to the CSLC detailing at a minimum, 1) recovery activities during decommissioning and post-decommissioning, 2) listings of all lost and recovered debris, and 3) final disposition of recovered debris, and 4) discussion of what debris could not be recovered and why.	MOT	Submit report to CSLC for approval	Reduce seafloor disturbances	CSLC	30-days after completion of seafloor debris removal plan
BIO-6: Potential impacts of deconstruction activities on special-status birds. Deconstruction activities may result in the disturbance of individuals or nests of special-status bird species. If nests are present during deconstruction, they would be destroyed. This would result in not only significant impacts, but also violation of regulations including the Migratory Bird Treaty Act, the state and/or federal Endangered Species Act, and other CDFG restrictions.	BIO-6a: Bird Plan. In consultation with the CDFG and the USFWS, Coscol shall prepare a Bird Plan detailing actions that would be taken to prevent bird nesting (deterrence measures), monitoring, appropriate responses to the presence of special-status birds and/or their nests, and an evaluation of the demolition project's sequence and potential for disturbance to nesting birds.	MOT	Submit plan to CSLC for approval	Deterrence of nesting on MOT	CSLC, CDFG, and USFWS	Before deconstruction
	BIO-6b: Prevent Bird Nesting. Under the supervision of a qualified biologist, deterrence measures (described in the Bird Plan, MM BIO-6) shall be employed.	MOT	Observe activities for compliance	Deterrence of nesting on MOT	CSLC	During deconstruction
	BIO-6c: Prioritized Removal of Nesting Structures. In order to reduce the probability of birds nesting on the terminal structure, elements that are the most likely to support nests (such as the loading arms) shall be removed as soon as possible in the deconstruction process.	MOT	Submit plan to CSLC for approval	Deterrence of nesting on MOT	CSLC	Before and during deconstruction
	BIO-6d: Preconstruction Surveys. Prior to deconstruction, as described in the Bird Plan (MM BIO-6a), a survey for nests shall be completed by a biologist to ensure that no nesting has taken place.	MOT	Submit surveys to CSLC for approval	Deterrence of nesting on MOT	CSLC	Before deconstruction
	BIO-6e: With Nests Present. In the event that a nest is found on the terminal, all deconstruction activities on the terminal shall be stopped to prevent disturbance or destruction of the nest. Coscol shall consult with the appropriate resource agency (such as CDFG, or the USFWS) as to the appropriate action.	MOT	Work plan verification, observe activities for compliance	Avoidance of nesting birds unless approved by CDFG or USFWS	CSLC, CDFG, and USFWS	During deconstruction

Table 5-3. Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
BIO-7: Potential impacts of deconstruction to migratory fish. Deconstruction activities, e.g., vessel movements and mooring, mooring anchor placement, barge grounding, piling removal, and jetting/dredging to expose piles below the seafloor surface, may result in physical disturbance and migration movement impacts to special-status fish such as Delta smelt, longfin smelt, green sturgeon, Chinook salmon, steelhead trout, Pacific herring, and Fishery Management Plan managed groundfish.	MM BIO-1a, through -1d and APM-7	MOT and onshore vault	Observe activities for compliance	Reduces disturbances of local population, habitat, biota, and seafloor	CSLC	During deconstruction

Table 5-4. Mitigation Monitoring Program – Cultural Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
CUL-1: Potential Impacts to cultural resources. Although there are no previously recorded cultural resources in the Project area, a Project-specific field survey was conducted. In addition, the remote sensing survey identified two anomalies that have yet to be inspected. Although not part of the Project footprint, anchoring of barges and/or vibration of the seabed from demolition activities may impact undiscovered resources.	CUL-1a: Maritime Surveys. Prior to initiation of deconstruction activities, the two anomalies recorded by Fugro shall be inspected by a qualified archaeologist to determine if they are cultural in nature. If this inspection determines that there are cultural resources that may be affected, avoidance and site protection measures shall be developed in consultation with the CSLC. Avoidance measures may include marking the locations of the resources with buoys and delineating a "no anchoring area" within 200 feet of the resources, and/or limiting the use of a vibratory extractor for pile removal, if the inspection determines that the resources would be adversely affected.	MOT	Submit report findings to CSLC, if applicable verify no anchoring area around anomalies	Reduce potential to damage unknown cultural resources	CSLC	Before and during deconstruction
	CUL-1b: Accidental Discoveries. Any accidental discovery of cultural resources during deconstruction shall be evaluated by a qualified archaeologist. If the find is determined to be potentially significant, the	MOT and onshore vault	Observe construction activities	Reduce potential to damage unknown	CSLC	Before and during deconstruction

Table 5-4. Mitigation Monitoring Program – Cultural Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	archaeologist, in consultation with the CSLC and the appropriate Native American group(s), shall develop a treatment plan. All work in the immediate vicinity of the unanticipated discovery shall cease until the qualified archaeologist has evaluated the discovery, or the treatment plan has been implemented.			cultural resources		
CUL-2: Potential Impacts to human remains. If unknown human remains are encountered during Project activities, potentially significant impacts could occur.	CUL-2: Measures for Human Remains. If human remains are encountered unexpectedly during excavation or backfilling activities, State Health and Safety Code section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC section 5097.98. If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the NAHC. The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action shall be taken in dealing with the remains.	Onshore vault	Observe construction activities; verify that any findings are reported to Corner and NAHC	Reduce potential to damage unknown cultural resources	CSLC	During deconstruction

Table 5-5. Mitigation Monitoring Program – Hazards and Hazardous Materials

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
HAZ-1: Transportation and use of hazardous materials could create a significant hazard. The proposed deconstruction Project includes the routine transportation and use of hazardous materials that could create a significant hazard to the public or environment.	HAZ-1a: MOT Hazardous Materials Inventory. Prior to commencement of deconstruction activities, Coscol shall develop and submit a written inventory of hazardous materials found on the MOT. Coscol shall complete a hazardous materials identification assessment for the MOT prior to deconstruction activities and shall include visual inspection for the purpose of identification of hazardous materials including electrical devices with a potential for mercury switches, mineral oil, and PCBs; air conditioning or other cooling systems with a potential for Freon or other	MOT	Submit plan to CSLC for approval	Reduce hazards risk and ensure proper planning for deconstruction in place	CSLC	Before deconstruction

Table 5-5. Mitigation Monitoring Program – Hazards and Hazardous Materials

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	ozone depleting refrigerant gases. The assessment shall be performed by an appropriately experienced and qualified California Registered Environmental Assessor. The assessment shall conclude with development of a Hazardous Materials Inventory that identifies the type, location, estimated quantity and nature of each potentially hazardous material.					
	HAZ-1b: Barge and Shore Base Hazardous Materials Inventory. Prior to commencement of deconstruction activities, Coscol shall develop and submit a written inventory of hazardous materials to be stored, used, or transported in, on, and around the MOT, work barges, shoreline work area, and shore base during the deconstruction activity. The inventory shall include the name of the material, the type, capacity, number and location of storage containers, type of hazard (pressure release, fire, explosion, asphyxiation, toxicity, bioaccumulation, etc.), and the maximum storage capacity at each location.	MOT, onshore vault, and contractor base	Submit plan to CSLC for approval	Reduce hazards risk and ensure proper planning for deconstruction in place	CSLC	Before deconstruction
	HAZ-1c: Hazardous Materials Management Plan. Prior to the start of deconstruction activities Coscol shall develop and submit to CSLC a Hazardous Materials Management Plan (HMMP) for the MOT, work barges, shoreline work area and shore base. The HMMP shall provide specific methods for control and containment of hazardous materials identified in the hazardous material inventories, and shall include hazardous materials management practices from deconstruction through disposal. The HMMP shall include a checklist for use in documenting periodic inspections of hazardous material areas, to occur at least weekly during deconstruction. The HMMP shall include emergency notification telephone numbers and emergency procedures for use in the event of a release of hazardous materials. Coscol shall submit	MOT, onshore vault, and contractor base	Submit plan to CSLC for approval	Reduce hazards risk and ensure proper planning for deconstruction in place	CSLC	Before deconstruction

Table 5-5. Mitigation Monitoring Program – Hazards and Hazardous Materials

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	the periodic hazardous materials inspection reports to CSLC throughout the course of the deconstruction project.					
	HAZ-1d: Grout Management Plan. Prior to the start of deconstruction activities, Coscol shall provide to CSLC a grout management plan including handling of dry grout, mixing, pumping, and disposition of excess and residual material. The grout management plan shall include measures to be implemented by Coscol to reduce the potential for release of grout, in all forms, to the environment.	MOT and onshore vault	Submit plan to CSLC for approval	Reduce hazards risk and ensure proper planning for deconstruction in place	CSLC	Before deconstruction
HAZ-2: Release of hazardous materials by the deconstruction Project could create a significant hazard. The proposed deconstruction Project could, through reasonably foreseeable upset and accident conditions, release hazardous materials that could create a significant hazard to the public or environment.	MM HAZ-1a through 1d, MM BIO-4a through 4e	MOT, onshore vault, and contractor base	Submit plan to CSLC for approval, observe compliance	Reduce hazards risk and ensure proper planning for deconstruction in place	CSLC	Before and during deconstruction
HAZ-3a: School Exposure to Routine Shore Base Deconstruction Emissions. Project deconstruction activities at the Vortex Marine Construction Shore Base, if selected, could expose nearby schools to dust, exhaust, and other routine project emissions.	MM AIR-1 and APM-3	MOT, onshore vault, and contractor base	Verification (maintenance logs) and dust control plan provided to CSLC, observe dust control compliance	Dust and exhaust emissions minimized	CSLC	Before and during deconstruction
HAZ-3b: School Exposure to Accidental Release of Hazardous Materials from the Shore Base. Project deconstruction activities at the Vortex Marine Construction Shore Base, if selected, could expose nearby schools to hazardous materials in the event of an accidental release.	MM HAZ-1a through 1d, MM AIR-1, and APM-3	MOT, onshore vault, and contractor base	Verification (maintenance logs), submit plan to CSLC for approval, observe compliance	Reduce dust, exhaust, and hazards risk and ensure proper planning for deconstruction in place	CSLC	Before and during deconstruction

Table 5-5. Mitigation Monitoring Program – Hazards and Hazardous Materials

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
HAZ-4: The deconstruction Project could expose an unknown hazard. The proposed deconstruction Project could expose an unknown hazard that could create a significant hazard to the public or environment.	HAZ-4a: Contaminant Monitoring and Control Plan. Prior to initiation of deconstruction activities, Coscol shall develop, subject to the review and approval of the CSLC, and subsequently implement a Contaminant Monitoring and Control Plan for use during the proposed Project. The Plan shall identify potential debris and contaminants, proposed Project activities that may disturb sediments, monitoring methods, containment methods, and recovery/removal methods. A Contingency Plan including work stoppage, emergency notifications, and emergency actions shall be included in the event of an unexpected large contaminant release. At a minimum, visual monitoring for floating debris, sheen, separate phase oil, or other visual indications of debris or contamination will be provided.	MOT and onshore vault	Submit plan to CSLC for approval, observe compliance	Reduce hazards risk and ensure proper planning for deconstruction in place	CSLC	Before and during deconstruction
	HAZ-4b: Contaminated Soil Contingency Plan. Prior to initiation of deconstruction activities, Coscol shall prepare, subject to the review and approval of the CSLC, a Contaminated Soil Contingency Plan which shall identify actions and notifications to occur if evidence of soil contamination is encountered during onshore excavation. Action and notification steps will include, at a minimum, a stop-work order and sampling to be performed by a qualified and approved environmental consultant and laboratory to confirm the nature and extent of contamination. The investigation will determine what measures are necessary to determine how workers will be protected and how hazardous materials and excavated soils shall be managed. The Contaminated Soil Contingency Plan shall include a list of Federal, State and local agencies to be notified depending on the type of discovery. Notification will include, at least, the Contra Costa County Department of Health Services, Division of Environmental Health.	MOT, onshore vault, and contractor base	Submit plan to CSLC for approval, observe compliance	Reduce hazards risk and ensure proper planning for deconstruction in place	CSLC, Contra Costa County DHS -DEH	Before and during deconstruction

Table 5-5. Mitigation Monitoring Program – Hazards and Hazardous Materials

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	HAZ-4c: Shore Base Stormwater Runoff Control. Coscol shall provide to CSLC, prior to the start of deconstruction, the shore base storm water pollution prevention compliance documents including the Storm Water Pollution Prevention Plan (SWPPP), the Annual Stormwater Monitoring Report for CY 2008, stormwater sampling and analysis reports and stormwater inspection records for one year prior to the start of deconstruction. In the event a shore base is selected that does not have a SWPPP or associated monitoring plans and reports, the Applicant shall develop and submit a comparable Plan to control runoff of sediment and potential contaminants during proposed Project activities at the shore base.	Contractor shore base	Submit plan to CSLC for approval, observe compliance	Reduce hazards risk and ensure proper planning for deconstruction in place	CSLC	Before deconstruction
	HAZ-4d: Paved Shore Base Work Areas. The applicant shall reduce the potential for transport of contamination in dust and dirt by restricting all shore-based activity to paved areas. Paving shall be maintained in good condition during project deconstruction work to provide a cover over underlying soil and fill.	Contractor shore base	Work plan verification approval, observe compliance	Reduce hazards risk and ensure proper planning for deconstruction in place	CSLC	Before and during deconstruction
	MM HAZ-1a through 1d, MM AIR-1, APM-3	MOT, onshore vault, and contractor base	Verification (maintenance logs), submit plan to CSLC for approval, observe compliance	Reduce dust, exhaust, and hazards risk and ensure proper planning for deconstruction in place	CSLC	Before and during deconstruction

Table 5-5. Mitigation Monitoring Program – Hazards and Hazardous Materials

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
HAZ-5: Onshore deconstruction activities could cause a grass fire. Deconstruction activities could cause a grass fire, which would expose people or structures to a significant risk of loss, injury or death.	HAZ-5a: Grass Fire Prevention Plan. Prior to mitigation of onshore deconstruction activities, Coscol shall develop and receive approval of a grass fire prevention plan specific to onshore deconstruction work in the Victoria Crescent Open Space. The grass fire prevention plan shall be developed in consultation with the State Fire Marshall, Contra Costa County Fire Department or other responsible fire-fighting agencies. The plan shall include specific measures to prevent ignition and spread of a grass fire, including, but not limited to: a "no smoking" policy in all work areas; required use of fire retardant blankets or other suitable barriers in areas where pipe welding, grinding, or cutting would occur; required presence of appropriate fire suppression equipment available at all times during activities that may result in ignition of grass fires; requirement of a training plan for all personnel prior to deconstruction activities; and a two-hour fire watch following pipe welding, grinding and cutting activities.	Onshore vault	Submit plan to CSLC for approval, submit attendance list of trainees, observe compliance	Reduce risk of grass fires	CSLC, State Fire Marshall, Contra Costa Fire Department	Before and during deconstruction
	HAZ-5b: Work Plan Revision or Addendum. Coscol shall develop a Work Plan revision or Work Plan Addendum for onshore work including removal of three of the four existing vent pipes from the pipeline sleeves under the rail right of way. The Work Plan revision must be submitted to CSLC for review and approval prior to implementation.	Onshore vault	Submit plan to CSLC for approval	Reduce hazards risk	CSLC	Before deconstruction

Table 5-6. Mitigation Monitoring Program – Hydrology and Water Quality

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
HYD-1: Discharges of waste material could degrade water quality. Improperly planned deconstruction activities could result in temporary discharges of waste material which could degrade water quality.	HYD-1: Work Plans. The applicant shall obtain written approval of all proposed work plans and permits from the overseeing agencies including the RWQCB, ACOE and the BCDC prior to commencement of deconstruction activities. The work plans shall include secondary containment measures to prevent any hazardous materials or debris from entering San Pablo Bay. The creosote timber removal procedure shall be approved of by the NMFS in writing prior to commencement of their removal. All work plans shall be in accordance with approved 401 Water Quality Certification Permit, section 404 Permit, and Administrative Permit from the BCDC and any comments from issuing agencies incorporated into project specifications.	MOT	Submission of written approval for work plans and hazardous materials inventory to CSLC	Minimizing of hazardous material or debris from entering San Pablo Bay	CSLC, NOAA NMFS, BCDC	Before deconstruction
	MM BIO-4a through -4f and MM HAZ-1a.	MOT	Submit hazardous materials inventory to CSLC, observe construction activities	Minimizing of hazardous material or debris from entering San Pablo Bay	CSLC	Before and during deconstruction

Table 5-7. Mitigation Monitoring Program – Noise

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
NOI-1: Onshore Temporary Abandonment Activity Noise. Proposed vault and pipeline abandonment activities could result in substantial short-term noise levels affecting nearby residences.	NOI-1a: Public Notification. Coscol shall establish a public outreach program to notify all residences within 1,000 feet of proposed vault and pipeline abandonment activities. Notification shall identify the proposed daily deconstruction schedule and the dates when the onshore abandonment activities would occur, and shall include	Onshore vault	Verify coordination with local population	Provides advance notice of potential noise impacts	CSLC	Before onshore vault deconstruction

Table 5-7. Mitigation Monitoring Program – Noise

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	the name and contact information of a Coscol representative for questions.					
	NOI-1b: Noise Barriers. Coscol shall install portable noise barriers (wooden or concrete) or curtains that block the line of sight between nearby residences and the abandonment activities. In addition, all compressors and other small stationary equipment shall be oriented so that the equipment exhaust would face towards the west, away from nearby residences.	Onshore vault	Work plan verification, observe construction activities	Reduce potential noise disturbance	CSLC	During onshore vault deconstruction

Table 5-8. Mitigation Monitoring Program – Public Services

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
PS-1: Potential Impacts to Demand for Fire and Police Protection Services. Project construction activities could temporarily increase the demand for fire protection services.	PS-1: Health and Safety Plan. Coscol shall prepare a Health and Safety Plan. The Health and Safety Plan shall be prepared by an approved and qualified industrial hygienist to protect the public and all workers in the construction area. As part of this process, Coscol shall ensure that any necessary investigation and/or remediation activities conducted in the Project site are coordinated with the Contra Costa County Fire Department and the Contra Costa County Department of Health Services, Division of Environmental Health, and, if needed, other appropriate State agencies.	MOT and onshore vault	Submit plan to CSLC for approval, observe compliance	Protection of workers and advance coordination with local first responders	CSLC	Before and during deconstruction

Table 5-9. Mitigation Monitoring Program – Transportation and Traffic

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
TT-1: Decommissioning activities could adversely affect traffic and transportation conditions in the study area.	TT-1: Traffic Management Plan. Coscol Company shall prepare and implement a Traffic Management Plan subject to approval of Caltrans/Contra Costa County and the city of Hercules. The approved Traffic Management Plan and documentation of agency approvals shall be submitted to the CSLC prior to the commencement of the MOT deconstruction activities. The plan shall: • Limit the operation of all delivery and haul truck activity to occur during the off peak weekday period (9:00 a.m. to 3:00 p.m.). Truck operations could be extended to include the period prior to and following peak weekday commute periods (7:30 p.m. to 5:30 a.m.) with authorization from appropriate agencies; • Include a discussion of work hours, haul routes, work area delineation, traffic control and flagging; • Identify all access, parking restriction and signage requirements; and, • Promote and facilitate workforce ridesharing activities to the extent possible.	Contractor shore base	Submit plan to CSLC for approval	Minimize traffic impacts on local circulation	CSLC	Before deconstruction

Table 5-10. Mitigation Monitoring Program – Utilities and Service Systems

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
UTIL-1: Potential Impacts to wastewater treatment facilities. If contaminated water is found in the MOT pipelines, the quantity and/or quality of this wastewater may be sufficient to disrupt operations at a wastewater treatment facility.	UTIL-1: Pretreatment, Discharge Planning, and Consultation. If contamination is found in an MOT pipeline to an extent that necessitates pipe cleaning, a cleaning method that complies with applicable requirements, and a treatment plant with capacity to receive and treat this water, shall be identified. The treatment plant operator shall be consulted, and the quantity and constituents of this water shall be	MOT and onshore vault	Verify consultation with treatment plant operator, report to CSLC	Minimize potential for release of contamination to the Bay	CSLC	During deconstruction

Table 5-10. Mitigation Monitoring Program – Utilities and Service Systems

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	determined in sufficient detail for the treatment plant to stipulate any necessary requirements for pretreatment and/or restriction of the rate of discharge to that plant.					
UTIL-2: Potential non-compliance with waste disposal regulations during the shore side facility abandonment.	UTIL-2: Explicitly Require Proper Removal in Project Specifications. Project specifications issued for bid shall include the requirement that materials removed from the onshore vault and pipeline area be transported to the staging area (i.e., the shore base) for recycling or disposal by the methods that are used for the MOT materials.	Onshore vault	Verification in work plan, observe activities for compliance	Ensure that proper removal of materials occurs	CSLC	Before and during deconstruction